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## ■ Julia Bostock and members of the ASE Survey Task Group

### Summary of the findings of the National Technicians' Survey 2010

#### Introduction

This online survey of technicians working in schools and colleges across the UK was set up by the ASE Survey Task Group in 2010, with the following aims:

- To compare the data with the last nationwide survey of 2000;
- To find out if the recommendations based on the results of 2000 had been implemented;
- To assess the success of the NVQ for Laboratory Technicians Working in Education;
- To ask technicians what type of tasks they perform and how this may have changed since 2000;
- To see if the document *A Career Structure for Science Technicians* had improved working conditions for technicians;
- To consider the impact of appraisals and training; and
- To see if the evidence could be used to raise the status of technicians.

The figures in the summary are based mainly on the results from England and Wales, with some additional figures from Scotland and Northern Ireland, where there may be a significant difference. The full report published in 2012 will use the data from all the regions.

#### An ageing workforce

Yes, folks, we are all getting older! In 2000, just over a quarter of technicians

were aged between 51 and 60. In 2010, 43% are in this age bracket. As retirement age rises, this figure is expected to increase. As the job can sometimes be physically demanding, this will impact on the health and wellbeing of the ageing workforce. The numbers of younger people entering the profession have fallen.

#### Pay and conditions

The number of technicians who were the main wage earner in the household had changed little. There was a slight increase in those who were the only earner in the household. However, there was a large increase in the numbers who regularly worked more than their contractual hours, from 12% in 2000 to over 60% in 2010. Half these were granted time off in lieu, only 9% received payment and a significant 38.5% received nothing.

#### Qualifications

Technicians are very well qualified. In 2010, there were no technicians without any qualifications. 38.5% were qualified to degree level, almost double the percentage in 2000. The number having technical qualifications had fallen considerably from 45% to 31.5%, probably as a result of day release learning opportunities being cut considerably.

There is a big discrepancy between the qualifications asked for by employers and the qualifications of the employees. Only 5% of job advertisements ask for a degree level qualification, even though

nearly 40% of technicians are educated to this level. Most job adverts asked for the applicants to be qualified to GCSE/O-level standard. Over 20% of adverts did not specify that any qualifications were required! This is keeping the pay and status of technicians artificially low, as the wages will be based on the job description.

In 2002, the ASE and the Royal Society made the following recommendations concerning NVQs for laboratory technicians:

*'NVQs should be promoted more vigorously to:*

- *provide a framework in which existing skills can be formally recognised;*
- *encourage technicians to continue to develop their skills throughout their careers; and*
- *support a career progression pathway. The Government should make available to schools... ring-fenced funding for the continuing professional development (CPD) of science technicians.*

*A nationally recognised induction programme should be included in the new career structure for science technicians. This programme should include competency-based training, a skills audit and a development plan for every new technician.'*

In 2006, the House of Lords Select Committee on Science and Technology reiterated these aims.

Unfortunately, fewer than 10% of job adverts asked for any technical qualifications and fewer than 5%

Figure 1: The sample

	2000 UK	2010 England & Wales
Responses	1712	442
% Female	76%	78%
Registered disability		1%
Relevant job description		81%
Mean years as technician	12.6	13.4
Mean years in current job	9.75	9.67

Figure 2: Actual highest qualifications

Year	2000	2010
Number of responses	420	416
	%	%
None	7.4	0
Degree	21	38.5
NVQ	1.0	9.1
Technical qualifications	45	31.5
A level	10	9.9
O level/GCSE	10	6.7
Other e.g. Masters level	4.5	4.3



Field Trips	41-55%
Personal risk assessment	48-89%
Setting up IT	36-85%
Setting up audio visual	50-72%

Figure 3: Other responsibilities increased

specifically asked for the NVQ. We have had to conclude that employers did not take the recommendations for technical qualifications on board and funding for the scheme has now been withdrawn.

### What do technicians do?

In the past ten years, the role has changed significantly, with science technicians performing higher-level tasks. This does not seem to be reflected in recruitment or fixing of pay scales. It is an issue that needs to be raised vigorously with Headteachers, school business managers, unions and local authorities. The basic tasks are still the same: making solutions, assembling apparatus and care and repair of equipment, etc. However, more technicians are involved in the financial aspect of laboratory management. In 2000, only 41% kept financial records. In 2010, this number had increased to 73%.

More technicians have to manage paper resources – the idea of the paperless office definitely has not had any impact. 79% still do photocopying.

IT has affected the way science is taught and now 85% of science technicians set up IT equipment, as opposed to just 36% ten years ago.

Previously, about half of technicians provided technical assistance to student teachers, NQTs, pupils and teachers. Now 91% do this.

Trialling practicals has jumped from 52% in 2000 to 97% in 2010. Other big rises have occurred in the numbers of technicians assisting in practicals and demonstrating in class.

### Continuing Professional Development

When the ASE published *A Career Structure for Science Technicians*, it was hoped that it would be beneficial in setting appropriate pay scales, especially for those technicians who had supervisory responsibility for other colleagues.

The survey showed that nearly half of technicians did indeed have supervisory responsibility. Only 6% of these reported that this was due to the career structure leaflet. This result was disappointing.

On a more positive note, training has increased in all areas, with 64% feeling that they receive enough training. 19% said that their CPD had led to them having supervisory responsibility.

Provision of training for technicians is an area that ASE, together with CLEAPSS and the Science Learning Centres, has developed in the last ten years, to ensure that a wide range of training is available, at a reasonable cost, to both new and experienced technicians. The main comment from the technicians is that it is difficult to get time off for training during term time. This has been an issue for some years, so the ASE runs the Annual Technicians' Conference in conjunction with the National Science Learning Centre in York, every July, when the timetable demands are easier, and Enthuse awards are available to cover the cost of the training.

Since 2000, the number of technicians being appraised has increased from 31% to 75%. However, less than half think that appraisal has had any positive impact. In Northern Ireland, this figure fell to only 16%. This indicates that appraisals are merely following a paperwork trail, rather than providing a real opportunity to further the professional development of technicians.

### The way forward

The National Technicians' Survey has shown that technicians are:

- Better qualified;
- Performing more of the higher level skills;
- Attending more training events;
- Working more hours over contract; and
- Older – young people are not joining the profession.

Good recommendations were not backed by legislation, so the NVQ path was not widely adopted and there is still no recognised career structure.

In September 2011, the House of Commons Science and Technology Committee made the following recommendation:

*'The government sets a standard for qualified teachers and ensures there is an appropriate measure of expected pay and conditions of service for a qualified teacher. We consider a similar standard should be set for school technicians.'*

To this end, a new initiative has been launched by ASE and the Science Council – the Registered Science Technician

## Avon Sci Tech Conference 2012

The Avon Sci Tech group are holding their FREE Annual Meeting with speakers in the morning and workshops in the afternoon at Broadlands School near Bristol on 6th July 2012. If you are a technician who cannot go to the National Technicians' Conference in York, please get in touch with us at [avon.tech@talk21.com](mailto:avon.tech@talk21.com) or [joy\\_dalton@sky.com](mailto:joy_dalton@sky.com)

scheme (RSciTech). More details can be found on page 14 of this issue of *EiS*.

### Acknowledgement

The Survey Task Group would like to thank all the technicians who took part in the survey and whose input has been invaluable. A full report is now available on the ASE website.

### A Liverpool thank you

The ASE Technicians Committee would like to thank all the technicians who attended the January 2012 ASE Annual Conference in Liverpool. There were 29 sessions of interest to technicians running on the Friday and an enjoyable and informative time was had by all!

### RSciTech – we are here to help!

As you will have seen elsewhere in this issue (see page 14), the RSciTech award is being launched in April, and the ASE Technicians Committee members will be the first to go through the process, now that they have completed the pilot scheme. Committee members will be the external assessors for other technicians, and Wilson Agnew will be on the Registration Board. We will also be on hand at the National Technicians' Conference at York on July 5th and 6th to answer questions at an information session.

**Julia Bostock** is Technical Officer in Science Education at Manchester Metropolitan University. Members of the ASE Survey Task Group include: Michelle McGaughey and Wilson Agnew (Northern Ireland); Phil Muggins, Pauline Anderson (retired) & Simon Blackwood (Scotland); Gill Halton & Simon Quinnell (England and Wales).